

4.2.1.7 Cultural and Paleontological Resources

Preferred Alternative: No Action Alternative

Under this alternative, DOE would continue the existing and planned missions at Hanford, which include continued storage of Pu material in the PFP in stabilized forms pursuant to DNFSB Recommendation 94-1. All inventory and evaluation of cultural resources at Hanford is conducted within the framework of the *Hanford Cultural Resources Management Plan* (PNL-6942 UC-600, June 1989), which has been in place since 1989. Any impacts to cultural or paleontological resources from these missions would be independent of the proposed action and would be addressed through separate NHPA, *American Indian Religious Freedom Act*, and *Native American Graves Protection and Repatriation Act* regulatory compliance procedures.

Upgrade Alternative

Upgrade Without Rocky Flats Environmental Technology Site Plutonium or Los Alamos National Laboratory Plutonium Subalternative

Modify Existing Fuels and Materials Examination Facility for Plutonium Storage

The FMEF is located in the 400 Area of Hanford in an existing protected area. This option involves only modification to selected areas of the existing facility. No new construction would be necessary. Because it was recently built, the FMEF itself is not NRHP eligible. The 400 Area has been surveyed, and no archaeological or historic resources were identified. Consequently, any land-disturbing activity associated with building modification (such as equipment staging areas and temporary roads) should not affect cultural resources. Similarly, operation does not involve increased activity or ground disturbance, so it would not result in impact.

Construct New 200 West Area Facility for Plutonium Storage

The new Pu storage facility would be constructed in the 200 West Area northwest of the PFP facility within the existing protected area. The total land required during construction and operation is 10.5 ha (26 acres). All land was previously disturbed, and there will be no construction on undisturbed land.

[Text deleted.]

A non-systematic archaeological survey was conducted across 50 percent of the 200 West Area. No prehistoric or historic resources were identified, except for the White Bluffs Freight Road, which was used during both prehistoric and historic times. This portion of the road is a noncontributing element of the NRHP-listed resource, and has been given a buffer zone to protect it from development. The road is outside the proposed construction area and will not be affected. Depending on siting, construction, and operation, the new facility may affect the functional and historic setting of the PFP, which is an NRHP-eligible property. The PFP was constructed between 1947 and 1949 and was used to produce Pu metal during the Cold War Era. Some scientifically valuable Pliocene and Pleistocene paleontological deposits may also exist in the areas to be excavated during construction; although this is unlikely as previous construction activities did not reveal these kinds of resources. Archaeological and paleontological resources would not be affected by facility operation because operation does not involve additional ground disturbance or increased activity.

To date, no Native American groups have identified any areas of special concern in proximity to the 200 Areas. [Text deleted.] Operation may result in reduced access to traditional hunting, fishing, and gathering areas, or visual and auditory intrusion into sacred spaces.

Upgrade With All or Some Rocky Flats Environmental Technology Site Plutonium and Los Alamos National Laboratory Plutonium Subalternative

Modify Existing Fuels and Materials Examination Facility for Plutonium Storage

The inclusion of RFETS and LANL material would not increase the total area requirement of the Upgrade Without RFETS or LANL Subalternative, therefore, no ground-breaking construction would be necessary. All materials could be accommodated within existing facilities. Consequently, construction and operation are not expected to affect cultural or paleontological resources.

Construct New 200 West Area Facility for Plutonium Storage

Total land disturbed by construction and operation would not increase with the inclusion of RFETS and LANL materials. Construction of a slightly larger Pu storage facility is not expected to have more of an effect on cultural or paleontological resources, as discussed under the new Pu storage facility option.

Consolidation Alternative

Construct New Plutonium Storage Facility

This alternative would involve the construction of a new facility west of the 200 East Area. During construction, 58.5 ha (144 acres) would be disturbed. The total land required for operation is 56 ha (138 acres). A 1.6-km (1 mi) reduced-access buffer zone exists and would be maintained around the facility. Pu storage in existing DOE storage facilities would be phased out.

The 200 areas have been surveyed, and no prehistoric or historic resources were identified. The area is previously disturbed. Some significant paleontological materials may occur within this acreage. The potential for impacts to paleontological resources is greatest during construction. Operation would not have an additional impact on resources, should any be identified during construction. As discussed under the new Hanford Pu storage facility upgrade option, Native American groups have not identified any resources in proximity to the 200 Areas. Additional consultation may be necessary for resource identification.

Collocation Alternative

Construct New Plutonium and Highly Enriched Uranium Storage Facilities

This alternative would involve the construction of a new HEU storage facility to be collocated with a consolidated special nuclear material plant adjacent to the 200 East Area. Land required during operation would be 87 ha (215 acres). Construction of this facility is expected to disturb 89.5 ha (221 acres). A 1.6-km (1-mi) reduced-access buffer zone exists and would be maintained around the facility. Pu and HEU storage in existing facilities would be phased out. Potential for impacts to these resources would be similar to that discussed under the previous Consolidation Alternative.

Subalternative Not Including Strategic Reserve and Weapons Research and Development Materials

Under this subalternative, facility and other resource requirements will be almost the same as the Upgrade With All or Some RFETS Pu and LANL Pu Subalternative, the Consolidation Alternative, and the Collocation Alternative. Therefore, impacts to cultural and paleontological resources would be equal to those previously discussed. [Text deleted.]

Phaseout

Impacts to archaeological resources are not anticipated because phaseout is not expected to result in ground-breaking activity. Likewise, no impacts to paleontological remains are expected. It may affect, through alteration, if subsequently proposed, some NRHP-eligible historic structures at Hanford. Impacts to Native American resources are not expected.

| [Text deleted.]